Your poster will present information about a game of chance:

1. Toss a coin
2. Throw a die
3. Throw 2 dice
4. Let’s Make a Deal
5. Random numbers

Include the data for your group, the class, and the school. Analyze the data by

* determining the theoretical and experimental probabilities;
* comparing your experimental probabilities at all three levels with the theoretical;
* applying your school data to the assigned problem.

You will be graded using the attached rubric. There is an outline below.

The suits of a standard deck of cards

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Hearts | Clubs | Diamonds | Spades |  |
| Abby | 10 | 11 | 7 | 12 | 40 |
| % | 25.0 | 27.5 | 17.5 | 30.0 | 100 |
| Bob | 9 | 7 | 10 | 0 | 26 |
| % | 34.6 | 26.9 | 38.5 | 0.0 | 100 |
| Cody | 15 | 12 | 19 | 14 | 60 |
| % | 25.0 | 20.0 | 31.7 | 23.3 | 100 |
|  | Hearts | Clubs | Diamonds | Spades |  |
| Class | 372 | 408 | 383 | 337 | 1500 |
| % | 24.8 | 27.2 | 25.5 | 22.5 | 100 |
| School | 3396 | 3400 | 3360 | 3372 | 13528 |
| % | 25.1 | 25.1 | 24.8 | 24.9 | 99.9 |

Statements about each level of data

Statements about theoretical data

Comparison of experimental and theoretical data

Application

You are playing a card game with your friends. To win, you need a club or a diamond. Based on school data and the theoretical model, what is the probability you will win if

1. you are starting with a fresh deck,
2. 2 clubs and a diamond have already been played,
3. a spade and a heart have been played.

Your solution to the problem.